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EXAMINER	
MUI, GARY	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/719,270	ADAMCZYK ET AL.	
	Examiner	Art Unit	
	Gary Mui	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 27 July 2007.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1,3-24,26-29,31-34,36-38,40 and 41 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1,3-24,26-29,31-34,36-38,40 and 41 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3 – 24, 26 – 29, 31 – 34, 36 – 38, 40 and 41 have been considered but are moot in view of the new ground(s) of rejection.

2. Claims 2, 25, 30, 35, and 39 has been cancelled as indicated by the amendment dated July 23, 2007.

3. Claims 1, 3 – 24, 26 – 29, 31 – 34, 36 – 38, 40 and 41 are currently pending.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3 – 7, 13, 14, 21 – 34, 36 – 38, 40, and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Hameleers et al. (US 2005/0160429 A1; hereinafter "Hameleers").

For claim 1, Hameleers teaches for each of a plurality of applications of a service provider which will communicate across the communication network, requesting a level of QoS using QoS requests from the service provider; and allocating levels of QoS to individual ones of the applications of the service provider in response to the QoS requests (see paragraphs 0011 and 0012; the server application request for capacity so that it can perform optimally and the capacity will be allocated to the application).

For claim 3, Hameleers teaches requesting a level of QoS using QoS requests from the service provider comprises generating a plurality of QoS requests, wherein each of the QoS requests is for a different one of the applications of the service provider (see paragraph 0014).

For claim 4, Hameleers teaches allocating levels of QoS to individual ones of the applications of the service provider in response to the QoS requests comprises allocating a level of QoS to a particular one of the applications of the service provider in response to a QoS request for the particular application (see paragraph 0014).

For claim 5, Hameleers teaches allocating levels of QoS to individual ones of the applications of the service provider in response to the QoS requests comprises allocating a network capacity level for communications by a particular one of the applications of the service provider in response to a QoS request for the particular application (see paragraph 0012).

For claim 6, Hameleers restricting communication by the particular one of the applications through the communication network with the service provider to the allocated network capacity level (see paragraph 0012; value of the capacity level can be set to zero for the application).

For claim 7, Hameleers teaches allocating a communication priority level for communications by a particular one of the applications of the service provider through the communication network in response to a QoS request for the particular application (see paragraph 0015).

For claims 13 and 14, Hameleers teaches evaluating at a network service manager the QoS that is available in the communication network; and allocating a level of QoS to a particular one of the applications of the service provider in response to a QoS request for the particular

application and the evaluation of the QoS available in the communication network (see paragraphs 0028 and 0029).

For claim 21, Hameleers teaches allocating the requested level of QoS to the service provider comprises notifying a broadband remote access server of the levels of QoS allocated to particular applications of the service provider (see paragraphs 0028 and 0029).

For claim 22, Hameleers teaches allocating the requested level of QoS to the service provider comprises notifying a routing gateway of the allocated level levels of QoS allocated to particular applications of the service provide (see paragraphs 0028 and 0029).

For claim 23, Hameleers teaches notifying the individual applications of the service provider of the levels of QoS that have been allocated thereto (see paragraph 0012).

For claim 24, Hameleers teaches service provider program code that when executed by a processor is configured to request a level of QoS for each of a plurality of applications of a service provider which will communicate across the communication network using QoS requests from the service provider; and QoS allocation program code that when executed by a processor is configured to allocate levels of QoS to individual ones of the applications of the service provider in response to the QoS requests (see paragraphs 0011, 0012, 0033 and 0034; the server application request for capacity so that it can perform optimally and the capacity will be allocated to the application).

For claim 26, Hameleers teaches the QoS allocation program code when executed by a processor is configured to allocate a network capacity level for communications by a particular one of the applications of the service provider in response to a QoS request for the particular application, and further comprising QoS management program code that when

executed by a processor is configured to restrict communications by the particular one of the applications through the communication network to the allocated network capacity level (see paragraph 0012; value of the capacity level can be set to zero for the application).

For claim 27, Hameleers teaches the QoS allocation program code when executed by a processor is configured to allocate a communication priority level for communication by a particular one of the applications of the service provider through the communication network in response to a QoS request for the particular application, and further comprising QoS management program code that when executed by a processor is configured to prioritize communications by the particular one of the applications through the communication network in response to the allocated communication priority level (see paragraph 0015).

For claim 28, Hameleers teaches QoS management program code that when executed by a processor is configured to shape information flow from a particular one of the applications of the service provider through the communication network in response to the QoS request for the particular application (see paragraph 0019).

For claim 29, Hameleers teaches program code that when executed by a processor is configured to validate the QoS request for a particular one of the applications of the service provider by comparing the QoS request to a DSL session data store (see paragraph 0012).

For claim 31, Hameleers teaches program code that when executed by a processor is configured to identify an application program of the service provider that is associated with the QoS request, and is configured to evaluate the QoS request based on the identified application program (see paragraphs 0028 and 0029).

For claim 32, Hameleers teaches program code that when executed by a processor is configured to notify a broadband remote access server of the levels of QoS allocated to particular applications of the service provider (see paragraphs 0028 and 0029).

For claim 32, Hameleers teaches program code that when executed by a processor is configured to notify a routing gateway of the levels of QoS allocated to particular applications of the service provider (see paragraphs 0028 and 0029).

For claim 34, Hameleers teaches a service provider; an application framework infrastructure; an access network communicatively coupling the service provider and the application framework infrastructure; a plurality of routing gateways; and a wide area network that communicatively couples the application framework infrastructure and the plurality of routing gateways, wherein the service provider is configured to request a level of QoS for each of a plurality of applications of a service provider which will communicate across the communication network using QoS requests from the service provider (see paragraphs 0011 and 0012; the server application request for capacity so that it can perform optimally and the capacity will be allocated to the application).

For claim 36, Hameleers teaches the application framework infrastructure is configured to allocate levels of QoS to individual ones of the applications of the service provider in response to the QoS requests (see paragraph 0012).

For claim 37, Hameleers teaches the application framework infrastructure is configured to identify at least one of the plurality of routing gateways that communicates with the applications of the service provider, and is configured to notify the identified at least one of

the plurality of routing gateways of the levels of QoS allocated to particular applications of the service provider (see paragraphs 0028 and 0029).

For claim 38, Hameleers teaches a broadband remote access server, wherein the application framework infrastructure is configured to notify the broadband remote access server of the levels of QoS allocated to particular applications of the service provider (see paragraphs 0028 and 0029).

For claim 40, Hameleers teaches allocating a different QoS level to each one of a plurality of applications of a service provider; and managing communications with individual ones of the applications of the service provider in response to the allocated QoS levels allocated to the respective individual applications (see paragraphs 0011 and 0012; the server application request for capacity so that it can perform optimally and the capacity will be allocated to the application).

For claim 41, Hameleers teaches allocating a different QoS level to each one of a plurality of IP addresses associated with different applications of a service provider; and managing communications with individual ones of the applications response to the QoS levels allocated to associated IP addresses based on the allocated QoS levels (see paragraphs 0011, 0012and 0019; the server application request for capacity so that it can perform optimally and the capacity will be allocated to the application).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 8 – 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Raisanen et al. (US 2003/0152028 A1; hereinafter "Raisanen").

For claims 8 – 10, Hameleers teaches all of the claimed subject matter with the exception of allocating levels of QoS to individual ones of the applications of the service provider in response to the QoS requests comprises allocating an allowed information delay level , information loss rate, or allowed packet size for communications through the communication network by a particular one of the applications of the service provider in response to a QoS

request for the particular application. Raisanen from the same field of endeavor teaches the measurement profile determines for example the QoS parameters (such as delay, jitter, packet loss, packet loss correlation, bandwidth) the values of which the measuring host A, C, B, D is to calculate and how it will deliver to the result to the QM (see paragraph 0040). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to allocate the information as taught by Raisanen into the server application management system of Hameleers. The motivation for doing this is to provide for a reliable system by providing all necessary information to meet requirements.

For claim 12, Hameleers teaches all of the claimed subject matter with the exception of allocating levels of QoS to individual ones of the applications of the service provider in response to the QoS requests comprises modifying a profile of information that is communicated through the communication network by a particular one of the applications of the service provider in response to a QoS request for the particular application. Raisanen from the same field of endeavor teaches the measurement profile determines for example the QoS parameters (such as delay, jitter, packet loss, packet loss correlation, bandwidth) the values of which the measuring host A, C, B, D is to calculate and how it will deliver to the result to the QM (see paragraph 0040). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the QoS profile as taught by Raisanen into the server application management system of Hameleers. The motivation for doing this is to provide for a reliable system by providing all necessary information to meet requirements.

Claim Rejections - 35 USC § 103

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Waclawsky et al. (US 6,628,610 B1; hereinafter "Waclawsky").

For claim 11, Hameleers teaches all of the claimed subject matter with the exception of modifying Maximum Transmission Unit size for packets communicated through a network based on the allocated level of QoS. Waclawsky from the same field of endeavor teaches changing the size of the packets in the flow for the communication device (see paragraph 4 lines 55 – 66). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to adjust the packet size as taught by Waclawsky into the server application management system of Hameleers. The motivation for doing this is to have a lower the system complexity.

Claim Rejections - 35 USC § 103

11. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Goyal et al. (US 6,999,474 A1; hereinafter "Goyal").

For claim 15, Hameleers teaches all of the claimed subject matter with the exception of evaluating at a network service manager the QoS available in the network comprises validating the QoS request for the particular application of the service provider. Goyal from the same field of endeavor authenticating the signaling messages and authorize the request for services (see column 5 lines 25 – 31). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to validate the request as taught

by Goyal into the server application management system of Hameleers. The motivation for doing this is to have a more secure system.

For claim 16, Hameleers teaches comparing the QoS request to a DSL session data store (see paragraph 0012)

Claim Rejections - 35 USC § 103

12. Claims 17 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Katsube et al. (US 2004/0095914 A1; hereinafter "Katsube").

For claim 17, Hameleers teaches all of the claimed subject matter wit the exception of evaluating the QoS service request based on information in a known filed in the data packet. Katsube from the same field of endeavor teaches the QoS classification looks at the header information (see paragraph 0043 lines 9 – 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to evaluate QoS based on packet information as taught by Katsube into the server application management system of Hameleers. The motivation for doing this is to have a more reliable system.

For claim 18, Hameleers teaches all of the claimed subject matter with the exception of identifying a protocol ID in the known field of the data packet; and evaluating the QoS request based on the identified protocol ID. Katsube from the same field of endeavor teaches identifying and evaluating the QoS based on the protocol field (see paragraph 0043 lines 10 – 19). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the protocol field for QoS as taught by Katsube into the server

application management system of Hameleers. The motivation for doing this is to have a more reliable system.

For claim 19, Hameleers teaches all of the claimed subject matter with the exception of identifying a source address and/or a destination address in the known field of the data packet; and evaluating the QoS request based on the identified source address and/or the destination address. Katsube from the same field of endeavor teaches the QoS classification looks at the header information which includes source and destination address (see paragraph 0043 lines 9 – 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to evaluate QoS based on packet information as taught by Katsube into the server application management system of Hameleers. The motivation for doing this is to have a more reliable system.

For claim 20, Hameleers teaches all of the claimed subject matter with the exception of identifying a source port number and/or a destination port number in the known field of the data packet; and evaluating the QoS request based on the identified source port number and/or a destination port number. Katsube from the same field of endeavor teaches the QoS classification looks at the header information, which includes port number (see paragraph 0043 lines 9 – 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to evaluate QoS based on packet information as taught by Katsube into the server application management system of Hameleers. The motivation for doing this is to have a more reliable system.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Trethewey (US 2003/0056002 A1) and Parlos (US 2005/0013244 A1) are cited to show methods, computer program products, and systems for managing quality of service in a communication network for applications.

14. **Examiner's Note**: Examiner has cited particular paragraphs or columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on

the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Mui whose telephone number is (571) 270-1420. The examiner can normally be reached on Mon. - Thurs. 9 - 3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GM 10.03.2007

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER